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EXAMINER				
LEE, TING ZHOU				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/038,312

Applicant(s)

HONG, JUN-IL

Examiner

TING LEE

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

1. The Request for Continued Examination (RCE) filed on 09/01/2009 under 37 CFR 1.53(d) based on parent Application No. 10/038,312 is acceptable and a RCE has been established. An action on the RCE follows.
2. The amendments filed on 09/01/2009, submitted with the filing of the RCE have been received and entered. Claims 1-5 as amended are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(c) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Cox, Jr. et. al. U.S. Patent 6,462,760 (hereinafter "Cox").

Referring to claim 1, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that

shown in Figure 5A to that shown in Figure 5B) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); and invoking the associated task operation module corresponding to the registered different function upon receipt of a user input for designating the individual state indicator (when the user designates the icon by selecting the icon, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the icon is invoked/executed) (column 5, line 62-column 6, line 5).

Referring to claim 2, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of

Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (column 4, lines 25-30 and column 5, line 62-column 6, line 5).

Referring to claim 3, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the

flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether a cursor or an input focus is positioned over a representation area of the related individual state indicator, upon receipt of a user button input (the user can select a representation area of the related individual state indicator by selecting the icon with a cursor device) (column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the cursor or input focus is positioned over the representation area of the related individual state indicator (if the user has selected the icon via the cursor device, the function/task operation, i.e.

"Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (column 4, lines 25-30 and column 5, line 62-column 6, line 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox, Jr. et al. U.S. Patent 6,462,760 (hereinafter "Cox") and Pinard U.S. Patent 5,898,432.

Referring to claim 4, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator

occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). However, Cox fails to explicitly teach that the indicator is

specifically a message indicator corresponding to a message reading function. Pinard teaches an icon whose appearance and function changes corresponding to a state change (for example, when a new email is received, the appearance of the cursor changes to display icon 25 shown in Figure 4, which causes a new function of an email message indicator to be registered to the cursor) (Pinard: column 1, line 59-column 2, line 10 and column 4, line 11-55) similar to that of Cox. In addition, Pinard further teaches a message state indicator corresponding to a message reading function (the message icon 25 shown in Figure 4, which corresponds to a message reading function in that display of the message icon indicates that the function of a user action, i.e. running an application program to access the email message is needed) (Pinard: column 4, lines 5-55). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Pinard before him at the time the invention was made, to modify the changing state indicator with its corresponding function taught by Cox to include the specific message indicator of Pinard. A message icon indicator is a specific type of icon indicator and use of an icon indicator to indicate arrival of a message is well known to one of ordinary skill in the art. One would have been motivated to modify the icon indicator of Cox to include many specific types of indicators with corresponding functions, including the well known message indicator of Pinard in order to obtain the predictable result of allowing the icon to indicate and provide access to a wide array of operations.

Referring to claim 4, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of

“Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the “Replace” task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the

associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). However, Cox fails to explicitly teach that the indicator is specifically an alarm state indicator corresponding to an alarm function. Pinard teaches an icon whose appearance and function changes corresponding to a state change (for example, when an alarm is received, the appearance of the cursor changes to display an alarm icon, which causes a new function of an alarm indicator to be registered to the cursor) (Pinard: column 1, line 59-column 2, line 10 and column 4, line 11-55) similar to that of Cox. In addition, Pinard further teaches an alarm state indicator corresponding to an alarm function (the icon can be an alarm icon, which corresponds to an alarm function in that display of the alarm icon indicates that the function of some user action regarding the alarm is needed) (Pinard: column 1, lines 64-67 and column 4, lines 5-55). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Pinard before him at the time the invention was made, to modify the changing state indicator with its corresponding function taught by Cox to include the specific alarm indicator of Pinard. An alarm icon indicator is a specific type of icon indicator and use of an icon to indicate an alarm is well known to one of ordinary skill in the art. One would have been motivated to modify the icon indicator of Cox to include many types of indicators with corresponding functions, including the well known alarm indicator of Pinard in order to obtain

the predictable result of allowing the icon to indicate and provide access to a wide array of operations.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

6. As a note, the examiner respectfully states that substituting the Cox reference for the Horwitz reference used in the previous U.S.C. 103 rejection of claims 1-5 (see Final Rejection dated 06/01/2009) would also read on the amended claim limitations. Specifically, the applicant argues that the combination of Pinard and Horwitz results in a clickable icon that changes form and "function" but does not change the response that will result when the icon is clicked upon, whereas in the present application, both the form and clickable function of the icon will change based on the state change. Pinard teaches that a single indicator can change its appearance to correspond to changing states. Cox teaches that a single indicator/icon's appearance and associated operation can be changed. Specifically, Cox teaches that user selection of the icon to invoke its operation results in the execution of the operation corresponding to the current icon state; for example, when the icon is as shown in Figure 5A, invoking the icon will cause the function of the "Find" operation to be executed, and when the icon is as shown in Figure 5B, invoking the icon will cause the function of the "Replace" operation to be executed (column 2, lines 5-16, column 5, lines 3-43 and column 5, line 62-column 6, line 5). Therefore, the

combination of Pinard and Cox teaches a clickable icon that changes its form and the response that will result when the icon is clicked upon. Cox further provides the motivation because such a combination provides for use of a single icon to represent and provide access to a plurality of operations that otherwise may require several icons, which can consume valuable space on a computer system display or monitor (column 2 lines 12-16).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TING LEE whose telephone number is (571)272-4058. The examiner can normally be reached on Monday - Friday 7:30am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on (571) 272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/TING LEE/
Primary Examiner, Art Unit 2173